

- 2) North Carolina can improve the practice environment to encourage more practitioners to move to North Carolina and to reduce the number of practitioners who leave practice in this state.

Both of these options are discussed more fully below.

Increasing production of providers practicing in North Carolina:

In order to practice medicine, physicians must attend an accredited allopathic^k or osteopathic^l medical school in the US or attend a foreign medical school and complete other licensure requirements.^{m,n} In 2004, 81.7% of the physicians who entered practice in North Carolina graduated from allopathic schools, 8.7% were from osteopathic schools, and 9.6% were international medical graduates (IMGs).^o

The growth in medical education in the US over the last 20 years has not kept pace with the growth in the overall population. Between 1982 and 2001, the US population increased 23%, but US medical school enrollment grew only 7%.¹¹ Medical student enrollment per 100,000 population actually decreased 13% during that same time period. Graduates from allopathic schools have stayed relatively constant over the last 25 years (approximately 15,700/year), but graduates from osteopathic schools have increased by more than 200% during the same time period. The number of students trained in international medical schools also has increased substantially.^p

Despite the growth in osteopathic graduates and US-IMGs, the overall rate of growth in physician supply is not keeping pace with the growth in overall population or increased demand for services. The Association of American Medical Colleges (AAMC) recently recommended US medical schools increase the number of undergraduate medical students they enroll by 30% in order to meet the need for physicians in the future.¹² While there is a growing recognition of the need to

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k Allopathic schools are accredited through the Liaison Committee on Medical Education (LCME).

l Osteopathic schools are accredited through the American Osteopathic Association (AOA). Information on the American Osteopathic Association (AOA) is available at: <http://www.osteopathic.org/>. Accessed April 3, 2006.

m There is not a standard accreditation process for foreign medical schools.

n All medical students are required to take three licensure exams, one after the second year of medical school, another during the fourth year, and the last during postgraduate education (typically at residency). Allopathic students trained in the US take their United States Medical Licensure Exam (USMLE) through the National Board of Medical Examiners. Osteopathic students take their Comprehensive Osteopathic Licensure Examination through the National Board of Osteopathic Medical Examiners, although osteopaths wishing to pursue postgraduate medical education through an allopathic residency placement must take their exam through the USMLE. Internationally-trained medical graduates (IMGs) take their first two exams through the Educational Commission for Foreign Medical Graduates. In addition to successfully passing the licensure exams, physicians also must complete at least one year of postgraduate education (internship or residency).

o In 2004, 64% of the medical students who entered US residency programs graduated from allopathic schools, 11% were from osteopathic schools, and 25% were international medical graduates (of whom 5% were US citizens trained in international schools, US-IMGs).

p There also has been a large increase in the number of medical students educated overseas. Between 1977 and 2004, there was a significant increase in the number of medical schools established in the Caribbean (from 1 in 1977 to 21 in 2004). US citizens educated overseas are eligible to be matched into US residency programs, but non-US citizens must first obtain a visa to enter the country in order to complete a residency in the US. In 2004, 22.6% of Educational Commission for Foreign Medical Graduates (ECFMG) Certificates were issued to US-born international medical graduates (US-IMGs) (1,360 out of 6,004). From 1980 to 2004, 13.9% of ECFMG certificates were issued to US-IMGs. Boulet JR, Norcini JJ, Whelan GP, Hallock JA, Seeling SS. The international medical graduate pipeline: Recent trends in certification and residency training. *Health Aff.* Web Exclusive. 2006;25(2):469-477. In 2004-2005, 7.5% of all residents in primary care programs were US-IMGs (3,358 of 44,668). Of all IMG primary care residents, 22.0% were US-IMGs (3,358 of 15,225). Brotherton SE, Rockey PH, Etzel SI. US graduate medical education, 2004-2005, trends in primary care specialties. *JAMA* 2005;294(9):1075-1082. Table 2.